

OFFICE OF THE STATE AUDITOR

DIANA DIZOGLIO

Official Audit Report – Issued November 13, 2025

Pension Reserves Investment Management Board

For the period July 1, 2022 through June 30, 2024



OFFICE OF THE STATE AUDITOR

DIANA DIZOGLIO

November 13, 2025

Michael Trotsky, Executive Director and Chief Investment Officer
Pension Reserves Investment Management Board
84 State Street
Boston, MA 02109

Dear Mr. Trotsky:

I am pleased to provide to you the results of the enclosed performance audit of the Pension Reserves Investment Management Board. As is typically the case, this report details the audit objectives, scope, methodology, findings, and recommendations for the audit period, July 1, 2022 through June 30, 2024.

As you know, my audit team discussed the contents of this report with agency managers. This report reflects those comments. I appreciate you and all your efforts at the Pension Reserves Investment Management Board. The cooperation and assistance provided to my staff during the audit went a long way toward a smooth process. Thank you for encouraging and making available your team. I am available to discuss this audit if you or your team has any questions.

Best regards,



Diana DiZoglio
Auditor of the Commonwealth

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LIST OF ABBREVIATIONS

AUM	assets under management
ESG	Environmental, Social, and Governance
NAV	net asset value
PRIM	Pension Reserves Investment Management Board
PRIT	Pension Reserves Investment Trust
ROI	return on investment

EXECUTIVE SUMMARY

In accordance with Section 12 of Chapter 11 of the Massachusetts General Laws, the Office of the State Auditor has conducted a performance audit of certain activities of the Pension Reserves Investment Management Board (PRIM) for the period July 1, 2022 through June 30, 2024.

The purpose of our audit was to determine the following:

- To what extent did PRIM review the portfolios of emerging managers against its benchmarks to ensure that the Pension Reserves Investment Trust Fund was not exposed to undue risks in accordance with Section 5 of PRIM's "Investment Policy Statement"?
- To what extent did PRIM work toward its goal of having at least 20% of investment managers who are minorities,¹ women, and people with disabilities, in accordance with Section 23(8)(b) of Chapter 32 of the General Laws?
- To what extent did PRIM review the quarterly calculations of management fees and investment returns in accordance with the third operational risk category of Section V (Risk Analysis) of its *Investment and Operations Risk Control Document*?

Our audit revealed no significant issues that must be reported under generally accepted government auditing standards. Therefore, we concluded that, during the audit period, PRIM met the relevant criteria regarding our objectives.

1. For the purposes of this audit report, we use the term minority in the same manner that the Supplier Diversity Office uses the term minority when defining a minority-owned business in its Comprehensive Annual Report Fiscal Year 2022. The Supplier Diversity Office defines a minority-owned business "as a business that is owned by a racially or ethnically diverse individual. While the [term is] meant to define an ethnically or racially diverse individual . . . [it is] not meant to denote a smaller or lesser status of the individuals . . . Included in this definition."

OVERVIEW OF AUDITED ENTITY

The Pension Reserves Investment Management Board (PRIM) was established by Chapter 661 of the Acts of 1983, and later amended by Chapter 315 of the Acts of 1996, to oversee the management of the Pension Reserves Investment Trust (PRIT) Fund. The PRIT Fund, established by the same legislation, is the investment portfolio for the assets of the Massachusetts State Employees' Retirement System, the Massachusetts Teachers' Retirement System, the State Retiree Benefits Trust Fund, and other Massachusetts retirement systems that elect to invest in the fund.

PRIM's website states the following:

PRIM serves as a professional investment service for public employees. Our mission is to provide a professional investment service for public employee retirement funds that maximizes the return on investment within acceptable levels of risk. We broadly diversify its investment portfolio, capitalizing on economies of scale to achieve cost-effective operations, and provide access to high quality, innovative investment management firms.

According to Section 23(2A) of Chapter 32 of the Massachusetts General Laws, PRIM is governed by a nine-member board. According to PRIM's website,

The nine-member PRIM Board acts as Trustee for each retirement system that invests in the PRIT Fund and is responsible for the control and management of the Fund.

The Treasurer and Receiver-General of the Commonwealth, or his/her designee, is a member ex officio of the PRIM Board and serves as its Chair. The Treasurer also appoints one member of the PRIM Board, who is a private citizen with an investment/business background. The Governor, or his/her designee, is also an ex officio member and appoints two members of the Board: one is a non-state official or employee, and one is a representative of a public safety union. The State-Teachers' Retirement System has two representatives on the Board: the members of that Retirement System elect one, and one is an Elected Member of the Massachusetts Teachers' Retirement Board. The State Employees' Retirement System has two representatives on the Board: the members of that Retirement System elect one, and one is an Elected Member of the State Employees' Retirement Board.

PRIM has the following five advisory committees: the Investment Committee, the Real Estate and Timberland Committee, the Administration and Audit Committee, the Compensation Committee, and the Stewardship and Sustainability Committee. According to PRIM's website,

The committees review and analyze proposed investments and issues under their jurisdiction and make recommendations to the Board for consideration and approval by Board vote. Committee members are appointed by the Chair and approved by the Board.

The board is responsible for appointing PRIM's executive director, outside investment managers, custodians, advisors, and other positions it deems necessary to fulfill PRIM's mission. The board also has the authority to formulate policies and procedures and to take other actions as necessary and appropriate to manage the assets of the PRIT Fund.

The executive director is the senior executive in charge of PRIM and is responsible for planning, directing, and executing PRIM's administrative and investment activities in accordance with the policies and directives of the board.

As of June 30, 2024, PRIM's staff members consisted of an investment team of 31 employees and a finance and operations team of 31 employees. The investment team works on the management of the PRIT Fund, and the finance and operations team works on financial reporting for the PRIT Fund and on all other administrative support.

According to PRIM's "Investment Policy Statement,"

PRIM's overall objective [regarding managing the PRIT Fund] is to achieve the highest level of investment performance that is compatible with its risk tolerance and prudent investment practices.

According to Section 22C of Chapter 32 of the General Laws, by 2040, the PRIT Fund should be fully funded to meet the Commonwealth's pension obligations. The PRIT Fund is and continues to be funded through annual payments made by the Office of the Comptroller of the Commonwealth in accordance with a funding schedule approved by the Legislature and through the accumulation of employee contributions and investment returns in the fund.

Retirement Systems

Massachusetts county, city, and town retirement systems that choose to invest in the PRIT Fund may choose to enroll as either participating retirement systems or purchasing retirement systems. Participating retirement systems—of which there are 37 as of June 30, 2024—are required by Section 22 of Chapter 32 of the General Laws to invest all of their retirement funds in the PRIT Fund; also, their assets must remain in the PRIT Fund for at least five years. Purchasing retirement systems—of which there are 62 as of June 30, 2024—can invest part of their funds in the PRIT Fund; also, they are able to contribute and withdraw assets at will. Both participating and purchasing retirement systems share in the investment earnings of the PRIT Fund based on their proportionate share of investments.

For local systems that may want to pursue their own individual asset allocation strategy within the PRIT Fund (as opposed to adopting the allocation strategy of the overall PRIT Fund), retirement boards can elect to invest in individual asset classes,² or segments, of the PRIT Fund. This segmentation option gives local retirement boards flexibility to choose specific asset classes in whatever proportions they believe best suit their needs.

Investment Managers

Section 23(8)(a–c) of Chapter 32 of the General Laws requires PRIM to establish policies regarding investments with emerging managers. Specifically, Section 23(8) of Chapter 32 of the General Laws states the following:

- b) It shall be the goal of the PRIM board that not less than 20 per cent of investment managers be minorities, females and persons with disabilities. It shall further be the goal of the PRIM board to utilize businesses owned by minorities, females and persons with disabilities for not less than 20 per cent of total contracts awarded [to investment managers].*
- c) Annually, not later than January 15 of each year, the PRIM board shall file with the house and senate committee on ways and means and with the joint committee on public service a report detailing its progress toward implementing the policies and goals outlined [in Section 23(8)(b) of Chapter 32 of the General Laws]. Such report shall include documentation related to all minority investment managers considered for investment, including documentation, where applicable, of the reasons for declining any such investment.*

To achieve its goal of having at least 20% of its assets under management (AUM) by minorities, women, or people with disabilities, PRIM developed the Emerging-Diverse Manager Program.

PRIM’s “Investment Policy Statement” defines emerging managers as investment managers with less than \$2 billion in AUM; this includes managers new to the investment industry, managers experienced in the investment industry with smaller portfolios, and managers who identify as minorities, women, or people with disabilities. PRIM aims to invest with emerging managers across all asset classes and to allocate between 5% and 10% of all new and established investments to these managers. To support this initiative, PRIM may consult advisors to help identify suitable emerging managers.

PRIM takes several steps to partner with emerging managers, such as allocating capital to emerging managers, reducing barriers typically faced by managers new to the investing industry, such as startup cost and lack of brand recognition in the industry, and encouraging emerging managers to work with

2. According to PRIM officials, an individual asset class is a group of investments that have similar characteristics, such as cash and cash equivalents, bonds, real assets, and stocks.

PRIM. As part of its commitment to understanding and promoting diversity within investment firms, PRIM conducts an annual request for investment managers to complete the Lenox Park Survey.³ This survey is meant to be a self-assessment tool, allowing managers to evaluate and report on their diversity practices and workforce composition.

According to PRIM officials, PRIM evaluates its emerging managers by reviewing a monthly performance measurement tool called the Net of Fees report, which its custodian bank⁴ compiles. The Net of Fees report provides PRIM with detailed information on the calculation of investment returns after accounting for any associated fees. This report is essential for assessing whether investment managers meet or fall short of the target rate of return. Such evaluations can influence future funding rates and liabilities.

Additionally, the board approves benchmarks,⁵ which are recommended by PRIM's outside consultant. PRIM uses these benchmarks to compare the performance of each asset class on a monthly basis against the approved standards. For example, as of June 30, 2024, the benchmark return for total domestic equity for the quarter was 3.34%. This means that all assets considered to be within the realm of domestic equities (e.g., the Standard and Poor's 500) were compared against a return of 3.34% between April 1, 2024 and June 30, 2024. PRIM staff members conduct a quarterly review with each investment manager to ensure that undue risks, such as performance that is not meeting the benchmarks, do not affect the PRIT Fund. For these performance review discussions, PRIM uses the monthly Net of Fees report.

However, if any concerns arise—such as poor investment performance, market volatility, excessive turnover, or challenges with the investment manager or firm—then PRIM may choose to terminate the contract, liquidate securities, or close the investment manager's account within the custodian bank system.

Management Fees

According to PRIM officials, PRIM's custodian bank calculates the performance of the PRIT Fund, the amount gross of fees, and the amount net of fees.⁶ PRIM reports the account balance, including the net

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3. Lenox Park Solutions is a data analytics company that works with financial service companies, or similar agencies, to gather information and statistics on diversity, equity, and inclusion for the companies that contract with it.
 4. A custodian bank is a financial institution responsible for safeguarding the assets (e.g., bonds or cash) of its clients and maintaining possession of these assets. These banks often offer related services, such as managing accounts, handling taxes, and distributing dividends. These banks are generally not engaged in other consumer banking services, such as lending.
 5. According to PRIM officials, a benchmark is a standard used to measure the change in asset class performance over a period.
 6. According to PRIM officials, the term gross of fees refers to the total value of assets under management before deducting any investment-related expenses (which include management fees, investment advisory fees, and custodian fees). In contrast, the term net of fees refers to the value of assets under management after deducting investment-related expenses from the gross value.

of fees because it accurately reflects the PRIT Fund's performance after considering all associated fees and expenses. Furthermore, PRIM employs various methods to ensure transparency regarding its investment management fees. For example, PRIM annually prepares a budget that details its estimated investment management fees; also, PRIM quarterly compares budgeted management fee expenses to the actual expenses. This comparison is included in the documentation for PRIM Administration and Audit Committee meetings, as well as for board meetings.

Management fees are established during contract negotiations between PRIM and the investment manager. Each month, PRIM staff members retrieve the net asset value (NAV)⁷ on the fourth business day to calculate the management fee according to the contract terms for each investment manager for public markets. After completing the calculation, PRIM staff members obtain the Net of Fees report, from the Microsoft SharePoint database for review. PRIM staff members examine the Net of Fees report to ensure that all new investment managers added during the month are accurately reflected. The report is then reviewed for reasonableness on a monthly basis for public markets.

According to PRIM officials, management fees for nonpublic markets are calculated either monthly or quarterly, depending on the investment manager. Each month, PRIM receives an invoice that details the monthly accruals. PRIM investment staff members review this invoice, comparing it to the estimated and final NAV and return information to ensure proper accrual of management fees. Below is an example of a fee schedule.

Assets Under Management	Tiered Annual Fee
First \$100 Million	0.28%
Next \$100 Million	0.16%
Over \$200 Million	0.13%

Fees are not paid until they have been reviewed and approved by PRIM's investment operations team.

Stewardship and Sustainability Committee

PRIM renamed the Environmental, Social, and Governance (ESG) Committee to the Stewardship and Sustainability Committee in October 2023. The goal of the committee is to ensure the continued success

7. According to the US Securities and Exchange Commission's website, the NAV is the fund's total "assets minus its liabilities."

and protection of the PRIT Fund, particularly regarding environmental, social, geopolitical, legal, and policy issues. These factors are constantly evolving and as such may impact the PRIT Fund.

Stewardship and Sustainability staff members conduct and provide research, participate with external organizations and partners in ESG initiatives, and provide ESG education for the Stewardship and Sustainability Committee and PRIM. Additionally, Stewardship and Sustainability staff members assist in selecting external ESG advisors and work with PRIM investment staff members to help ensure that approved Stewardship Priorities are integrated into overall investment strategies.

As of December 2024, the Stewardship and Sustainability Committee does not make any investment recommendations but worked with the Investment Committee and the Real Estate and Timberland Committee on suggesting ESG-investment strategies. The Investment Committee and the Real Estate and Timberland Committee remain responsible for making all investment recommendations to PRIM. The Stewardship and Sustainability Committee is responsible for providing proxy voting recommendations to PRIM.

AUDIT OBJECTIVES, SCOPE, AND METHODOLOGY

In accordance with Section 12 of Chapter 11 of the Massachusetts General Laws, the Office of the State Auditor has conducted a performance audit of certain activities of the Pension Reserves Investment Management Board (PRIM) for the period July 1, 2022 through June 30, 2024.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Below is a list of our audit objectives, indicating each question we intended our audit to answer; the conclusion we reached regarding each objective; and, if applicable, where each objective is discussed in the audit findings.

Objective	Conclusion
1. To what extent did PRIM review the portfolios of emerging managers against its benchmarks to ensure that the Pension Reserves Investment Trust (PRIT) Fund was not exposed to undue risks in accordance with Section 5 of PRIM's "Investment Policy Statement"?	To a sufficient extent
2. To what extent did PRIM work toward its goal of having at least 20% of investment managers who are minorities, women, and people with disabilities, in accordance with Section 23(8)(b) of Chapter 32 of the General Laws?	To a sufficient extent
3. To what extent did PRIM review the quarterly calculations of management fees and investment returns in accordance with the third operational risk category of Section V (Risk Analysis) of its <i>Investment and Operations Risk Control Document</i> ?	To a sufficient extent

To accomplish our audit objectives, we gained an understanding of the PRIM internal control environment relevant to our objectives by reviewing PRIM's internal control plan and applicable policies and procedures, conducting site visits, and interviewing PRIM management. We also tested the operating effectiveness of internal controls for the approval of management fees. In addition, to obtain sufficient, appropriate evidence to address our audit objectives, we performed the procedures described below.

Emerging Managers

To determine to what extent PRIM reviewed the portfolios of emerging managers against its benchmarks to ensure that the PRIT Fund was not exposed to undue risks in accordance with Section 5 of PRIM's "Investment Policy Statement," we selected a random, nonstatistical⁸ sample of 35 from a population of 221 emerging managers who had assets under management (AUM) under \$2 billion. For each selected emerging manager, we reviewed the performance report from the custodian bank and compared the benchmarks approved by PRIM to the actual fund performance. We also examined PRIM's quarterly monitoring summary reports for each emerging manager in our sample to determine whether PRIM tracked the performance of these managers. Furthermore, we reviewed the archived meeting details from the customer relationship management software to confirm that PRIM documented the quarterly performance meeting between PRIM and the investment manager.

For this objective, we found no significant issues during our testing. Therefore, we concluded that, based on our testing, PRIM reviewed the portfolios of emerging managers against its benchmarks to ensure that the PRIT Fund was not exposed to undue risks.

Investment Managers

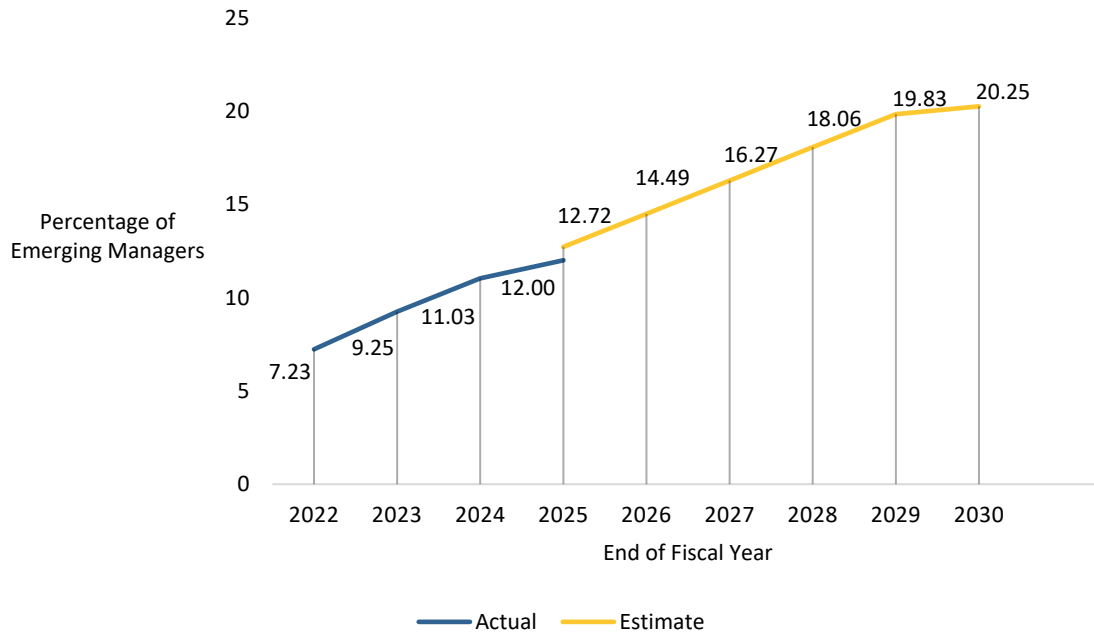
To determine to what extent PRIM worked toward its goal of having at least 20% of investment managers who are minorities, women, and people with disabilities, in accordance with Section 23(8)(b) of Chapter 32 of the General Laws, we obtained a list of investment managers associated with 730 management fee accounts, which also included each manager's net asset data and quarterly status. We then calculated the percentage of net assets managed by emerging managers and used this information to compare PRIM's progress in meeting the 20% goal. Additionally, we developed a forecast in Tableau⁹ to estimate when PRIM is expected to achieve its goal of having 20% of emerging managers overseeing the PRIT Fund, based on trends that were current as of June 30, 2024. We anticipate that PRIM will reach the target of having 20% of its PRIT Fund investment managers with a status of emerging manager by the first quarter of 2030.

The graph below shows both the growth trend of emerging managers who managed the PRIT Fund during the audit period and the projected date that PRIM is expected to achieve the 20% goal.

8. Auditors use nonstatistical sampling to select items for audit testing when a population is very small, the population items are not similar enough, or there are specific items in the population that the auditors want to review.

9. According to the Tableau website, "Tableau is a visual analytics platform."

PRIM's Emerging Manager Growth Trend



For this objective, we found no significant issues during our testing. Therefore, we concluded that, based on our testing, PRIM worked toward its goal of having at least 20% of investment managers who are minorities, women, and people with disabilities.

The table below shows the change in net asset value (NAV) by the emerging manager as of June 30, 2023 and June 30, 2024.

Emerging Manager	NAV at June 30, 2023	NAV at June 30, 2024	Percentage Change
1315 Capital	\$ 1,310,971	\$ 2,692,254	105%
Adelante Capital Management	20,620,155	22,397,232	9%
ARGA Investment Management, LP	656,069,819	730,598,433	11%
Bayard Asset Management	26,643,025	32,671,909	23%
BentallGreenOak	25,338,754	60,333,902	138%
Bivium Capital Partners, LLC	(82,673)	(98,961)	20%
Canvas Capital	139,274,856	106,853,778	-23%
Capula Management Limited	552,382,545	590,622,747	7%
Causeway Capital Management LLC	488,273,873	548,632,911	12%
Complus Asset Management Limited	320,896,089	398,665,442	24%
Consilium Investment Management	-	28,168,896	100%
Contrarian Capital Management	290,968,027	455,141,400	56%
Ducenta Squared Asset Management	39,058,331	40,182,833	3%
Fithian LLC	31,099,495	31,797,407	2%
Flagship Pioneering	364,511,275	259,005,835	-29%
Frontier Global Partners, LLC	26,386,152	28,020,195	6%
GIA Partners	31,066,918	34,730,663	12%
Global Infrastructure Finance	-	21,461,075	100%
HongShan Capital	2,916,028	8,138,927	179%
Integrated Quantitative Investments	-	26,233,662	100%
Kah Capital Management	-	11,862,270	100%
Kepha Partners	8,421,769	11,307,227	34%
Keytone Ventures	20,930,213	20,381,311	-3%
Kinzie Capital Partners	1,255,330	3,672,438	193%
Knox Lane	-	2,901,998	100%
LM Capital Group	30,518,196	32,839,852	8%
Longfellow Investment Management Co., LLC	472,658,598	602,219,528	27%
Loop Capital Asset Management	31,805,955	33,181,280	4%
Maytech Global Investments	-	35,316,292	100%
Merit Hill Capital	7,660,005	8,461,353	10%
New Century Advisors, LLC	397,453,638	487,230,049	23%
NewView Capital	1,800,000	7,513,576	317%
Osso Capital	2,851,483	4,161,766	46%
Pacific Alternative Asset Management Company	712,459,640	771,943,728	8%
Polaris Venture Partners	43,879,850	42,010,188	-4%

Emerging Manager	NAV at June 30, 2023	NAV at June 30, 2024	Percentage Change
Pugh Capital Management, Inc.	463,911,769	588,985,643	27%
Pzena Investment Management LLC	1,437,082,638	1,472,636,865	2%
Red Arts Capital	4,311,116	5,940,941	38%
RhumbLine Advisers	2,085,611,569	3,830,268,006	84%
RV Capital Management Private Ltd	270,751,035	300,082,001	11%
Tidemark	12,309,457	22,540,922	83%
Trio Net Lease I	1,862,606	6,734,657	262%
Vision Capital	1,106,896	2,866,753	159%
Vista Equity Partners	241,127,196	254,305,375	5%
Vistria Housing Fund	-	15,000,000	100%
Wing Ventures	-	1,404,202	100%
Xponance Asset Management	346,910,789	370,726,745	7%
Redwood Investments	23,957,263	25,212,390	5%
TowerBrook Capital Partners	288,337,210	340,109,372	18%
Total	<u>\$ 9,925,707,861</u>	<u>\$ 12,738,067,268</u>	

The total NAV for all of PRIM's investment managers (including emerging managers) for fiscal years 2023 and 2024 were \$107,283,709,700 and \$115,443,314,509, respectively.

Management Fees and Investment Returns

To determine to what extent PRIM reviewed the quarterly calculations of management fees and investment returns in accordance with the third operational risk category of Section V (Risk Analysis) of its *Investment and Operations Risk Control Document*, we took the following actions. We reviewed a list of management fee accounts for fiscal year 2023 (totaling \$94,747,548) and fiscal year 2024 (totaling \$122,069,820), totaling 730 management fee accounts for both years, and reconciled the data back to the audited financial statements.

We selected a random, nonstatistical sample of 20 management fee accounts and examined quarterly invoices from the audit period, totaling 160 invoices (20 accounts multiplied by 8 quarters equals 160). Using the management fee structure defined in the contracts for each management fee account in our sample, we recalculated the management fees for each quarter and compared them to the invoice amount. Furthermore, we ensured that the appropriate individuals approved the invoices on behalf of

PRIM. Additionally, we reviewed PRIM's approvals of the returns on the investment calculation, which is included in the Net of Fees report issued by the custodian bank for each quarter.

To understand how management fees affect return on investment, see [Appendix](#). It clearly shows the link between management fees and investment performance, which is essential for making informed decisions.

For this objective, we found no significant issues during our testing. Therefore, we concluded that, based on our testing, PRIM reviewed the quarterly calculations of management fees and investment returns.

We used nonstatistical sampling methods for testing and therefore did not project the results of our testing to any population.

Data Reliability Assessment

To assess the reliability of PRIM's emerging and investment manager AUM and the list of total management fees from the PRIM investment management system, we interviewed PRIM officials who were knowledgeable about the data.

We reviewed the System and Organization Control reports¹⁰ for the audit period, which included, but were not limited to, testing security management, access controls, configuration management, segregation of duties, and contingency planning.

For the list of emerging and investment managers with AUM, we obtained and reviewed a list of PRIM's total investments, including investments with emerging managers, from the PRIM custodian bank's information system, which included the source account names and AUM amounts of PRIM's investment managers. We obtained and reviewed a list of the names of investment managers from the relationship management system. We reconciled PRIM's performance measurement from the Net of Fees report for each quarter of the audit period.

Additionally, we compared the list of all of PRIM's investment managers to the relationship management software to verify diversity information, such as investment managers who identify themselves as minorities, women, or people with disabilities. We randomly selected a sample of 10 emerging managers

10. A System and Organization Control report is a report, issued by an independent contractor, on controls about a service organization's systems relevant to security, availability, processing integrity, confidentiality, or privacy.

from the list of investment and emerging managers and confirmed that the investment managers who had a status of AUM under \$2 billion was either minority- or woman-owned. We tested the list of investment and emerging managers for any duplicate records.

For the list of management fees, we reconciled the list with the custodian bank and the audited financial statements for fiscal years 2023 and 2024.

Based on the results of the data reliability assessment procedures described above, we determined that the information we obtained during the course of our audit was sufficiently reliable for the purposes of our audit.

Conclusion

Our audit revealed no significant issues that must be reported under generally accepted government auditing standards. Therefore, we concluded that, during the audit period, PRIM met the relevant criteria regarding our objectives.

APPENDIX

We inquired with Pension Reserves Investment Management Board (PRIM) officials about management fees and whether PRIM management compares them to any benchmarks. The PRIM officials told us that they do not use any industry standard benchmarks regarding fees because the industry is highly competitive and there are many factors that determine fees. For example, according to PRIM officials, an actively managed fund could charge higher management fees while a passively managed fund could charge lower fees. The asset class is another determining factor. The PRIM officials explained that while they are concerned with fees, they also consider risk versus return versus cost in determining whether the risks of the funds and the returns are worth the cost of the fees. PRIM officials stated that PRIM does not make its decision solely on which investment managers charge the lowest fees.

PRIM officials explained that they use a multi-pronged approach in assessing fees. First, they have a current market landscape for fees for the specific type of service that they can use as a benchmark in assessing the fees charged by investment managers. Second, PRIM management collaborates with consultants who assist in determining whether the proposed fees are reasonable. Third, PRIM management uses an external database containing information about different investment strategies. By triangulating data from these sources, PRIM management establishes the current fee rates that are competitive with the market.

Another tool at PRIM management's disposal is the inclusion of a "most favored nation" clause within its contracts with investment managers. This is intended to ensure that PRIM is paying competitive fees to the investment managers by allowing PRIM to adjust the fees if another client that has a similar mandate to PRIM is paying lower fees. This is meant to allow PRIM to ensure that it receives competitive fees from investment managers.

PRIM monitors the fees it pays to investment managers by tracking its analysis of management fees in a spreadsheet. We observed this spreadsheet and noted that PRIM's analysis charted instances where it was paying higher or lower fees or paying around the median. PRIM officials acknowledged that sometimes PRIM accepts higher fees to secure better investment managers.

PRIM officials stated that the assessment of investment managers ultimately hinges on their overall net performance. This evaluation typically spans a period of three to five years, rather than being done annually.

PRIM examines whether investment managers are meeting their initial objectives and surpassing expected benchmarks. If managers are not performing well, even before fees are taken into account, it raises the question of why they would continue to keep that particular investment manager in their portfolio.

The tables below compare investment managers' performances for funds in fiscal years 2023 and 2024 by showing returns on investment (ROIs), both gross and net of fees, and comparing those returns to the benchmarks used by PRIM. We also included the funds' net asset value (NAV) to indicate the size of the funds.

Investment Managers' Performances by Fund for Fiscal Year 2023¹¹

Fund Name	NAV \$	Gross ROI	Net ROI	Difference (Percentage ROI Spent on Fees)	Benchmark	Net ROI Compared to Benchmark
SSGA S&P 500	\$16,831,883	19.66%	19.66%	0.00%	19.67%	-0.01%
RhumbLine S&P 500	2,085,612	19.67%	19.66%	0.01%	19.67%	-0.01%
Summit Creek	465,503	6.64%	5.78%	0.86%	18.57%	-12.79%
Frontier	524,244	22.3%	21.78%	0.52%	6.04%	15.74%
Riverbridge	403,257	18.03%	17.28%	0.75%	18.59%	-1.31%
SSGA R2500	1,062,434	13.53%	13.52%	0.01%	13.58%	-0.06%
Acadian US Microcap	234,075	18.52%	14.64%	3.88%	1.37%	13.27%
Brandywine US Microcap Value	175,987	8.75%	7.97%	0.78%	2.86%	5.11%
Lord Abbett US Microcap Growth	200,524	24.97%	24.09%	0.88%	12.67%	11.42%
Driehaus Capital Management	229,982	22.6%	21.69%	0.91%	12.67%	9.02%
SSGA World Ex-US Standard	2,279,191	17.53%	17.52%	0.01%	17.19%	0.33%
Marathon-London	2,389,236	19.06%	18.69%	0.37%	17.19%	1.50%
Baillie Gifford	1,734,242	19.52%	19.22%	0.30%	17.19%	2.03%

11. We used the Gross and Net of Fees reports for fiscal year 2023 to create this table. All cash accounts were excluded from this table because there is no ROI for cash balances.

Fund Name	NAV \$	Gross ROI	Net ROI	Difference (Percentage ROI Spent on Fees)	Benchmark	Net ROI Compared to Benchmark
Mondrian Investment	765,973	13.88%	13.5%	0.38%	17.19%	-3.69%
ARGA	656,070	23.18%	22.7%	0.48%	17.19%	5.51%
Columbia Threadneedle*	553,931	23.18%	22.93%	0.25%	29.15%	-6.22%
Causeway Capital Management*	488,274	40.03%	39.66%	0.37%	29.15%	10.51%
Pzena Investment Management*	408,203	37.69%	37.35%	0.34%	29.15%	8.20%
Xponance	347,003	16.21%	15.63%	0.58%	17.19%	-1.56%
SSGA World Ex-US Small	714,473	10.24%	10.23%	0.01%	10.07%	0.16%
Acadian INTL Small Cap	360,854	12.19%	11.64%	0.55%	10.07%	1.57%
AQR INTL Small Cap	234,850	17.39%	16.71%	0.68%	10.07%	6.64%
Driehaus Small Cap	185,884	13.45%	12.74%	0.71%	10.07%	2.67%
Artisan Small Cap	189,717	15.15%	14.2%	0.95%	10.07%	4.13%
AQR Emerging	687,812	3.22%	2.95%	0.27%	1.56%	1.39%
T Rowe Price Em Equity Strat	245,725	-0.08%	-0.72%	0.64%	1.56%	-2.28%
Baillie Gifford EMM	753,431	8.93%	8.35%	0.58%	1.56%	6.79%
Driehaus Capital	867,303	1.53%	1.06%	0.47%	1.56%	-0.5%
Pzena Investment	1,028,880	18.37%	17.67%	0.70%	1.56%	16.11%
Acadian	516,995	19.46%	18.39%	1.07%	13.31%	5.08%
Wasatch	167,218	11.4%	10.34%	1.06%	13.31%	-2.97%
Xponance	108,004	15.31%	14.63%	0.68%	13.13%	1.50%
Blackrock Passive	1,399,819	-0.86%	-0.87%	0.01%	-0.94%	0.07%
PIMCO Core	1,412,343	-0.51%	-0.71%	0.20%	-0.94%	0.23%
Loomis Sayles Core	1,758,293	-0.43%	-0.55%	0.12%	-0.94%	0.39%
AFL-CIO Housing Investment-ETI	131,834	-2.13%	-2.23%	0.10%	-0.94%	-1.29%

Fund Name	NAV \$	Gross ROI	Net ROI	Difference (Percentage ROI Spent on Fees)	Benchmark	Net ROI Compared to Benchmark
Pugh	463,912	0.29%	0.12%	0.17%	-0.94%	1.06%
New Century	397,454	-0.89%	-1.06%	0.17%	-0.94%	-0.12%
Longfellow	472,659	-0.06%	-0.21%	0.15%	-0.94%	0.73%
Blackrock—Strips	2,472,331	-10.64%	-10.65%	0.01%	-10.81%	0.16%
Blackrock—Short Term	860,431	0.18%	0.17%	0.01%	0.15%	0.02%
Blackrock—Tips	2,547,807	-1.35%	-1.36%	0.01%	-1.4%	0.04%
Blackrock ILBs	845,813	-3.56%	-3.68%	0.12%	-3.72%	0.04%
Bivium	70,820	-0.57%	-1.03%	0.46%	-0.94%	-0.09%
Fidelity	477,973	8.16%	7.82%	0.34%	8.97%	-1.15%
Loomis Sayles High Yield	445,239	7.6%	7.16%	0.44%	8.97%	-1.81%
Shenkman	422,333	10.28%	9.87%	0.41%	8.97%	0.90%
Eaton Vance	1,063,045	10.35%	9.92%	0.43%	10.71%	-0.79%
Voya	1,038,843	9.68%	9.33%	0.35%	10.71%	-1.38%
Ashmore	398,492	4.78%	4.12%	0.66%	6.85%	-2.73%
PIMCO EMD	394,216	9.15%	8.79%	0.36%	6.85%	1.94%
Bivium	61,547	5.55%	4.89%	0.66%	8.08%	-3.19%
Other Credit Opportunities	1,420,265	4.98%	4.81%	0.17%	7.36%	-2.55%
Private Debt	1,110,078	5.92%	4.69%	1.23%	1.91%	2.78%
Private Equity	16,776,635	-3.45%	-4.62%	1.17%	-3.57%	-1.05%
Invesco Core	2,703,497	-6.51%	-6.8%	0.29%	-3.91%	-2.89%
LaSalle	2,545,916	-2.8%	-3.11%	0.31%	-3.91%	0.80%
AEW	2,499,230	-1.4%	-1.04%	-0.36%	-3.91%	2.87%
CBRE	671,625	-1.08%	-1.82%	0.74%	-3.91%	2.09%
Stockbridge	613,952	1.36%	0.55%	0.81%	-3.91%	4.46%
PRIM—CORE Real Estate	738,609	4.21%	4.09%	0.12%	-3.91%	8.00%
AEW Core Trans	65,953	-6.38%	-6.85%	0.47%	-3.91%	-2.94%
Invesco Trans	60,933	2.84%	2.39%	0.45%	-3.91%	6.30%
Non-Core	574,075	-1.65%	-2.62%	0.97%	-3.91%	1.29%

Fund Name	NAV \$	Gross ROI	Net ROI	Difference (Percentage ROI Spent on Fees)	Benchmark	Net ROI Compared to Benchmark
CenterSquare Global Reit	674,505	-3.04%	-3.36%	0.32%	-3.74%	0.38%
Brookfield	343,415	-2.72%	-3.16%	0.44%	-3.74%	0.58%
Cambridge Associates	32,857	6.52%	-12.94%	19.46%	6.93%	-19.87%
Forest Investments	1,358,346	10.22%	9.99%	0.23%	11.31%	-1.32%
The Campbell Group	1,624,479	2.55%	2.73%	-0.18%	11.31%	-8.58%
Directional Hedge Funds	2,105,626	4.92%	4.91%	0.01%	9.09%	-4.18%
Stable Value Hedge Funds**	4,475,167	4.64%	4.64%	0.00%	4.15%	0.49%
Pacific Alternative Asset Management Company**	712,460	2.88%	2.88%	0.00%	5.56%	-2.68%
Real Assets	736,761	-5.49%	-6.06%	0.57%	10.14%	-16.20%
Parametric	143,601	10.63%	10.35%	0.28%	13.46%	-3.11%
Total Liquidating Portfolios	37,246	-13.12%	-13.18%	0.06%	-13.12%	-0.06%
Total Assets Under Management	<u>\$97,057,205</u>					

* These investments were not part of the portfolio long enough to determine a one-year performance. As a result, we used the inception-to-date benchmark and ROI in our calculations. However, they do have one-year performance metrics for 2024.

** For this hedge fund, management fees are taken out before Gross of Fees reports.

Investment Managers' Performances by Fund for Fiscal Year 2024¹²

Fund Name	NAV \$	Gross ROI	Net ROI	Difference (Percentage ROI Spent on Fees)	Benchmark	Net ROI Compared to Benchmark
SSGA S&P 500	\$ 19,365,893	24.64%	24.63%	0.01%	24.65%	-0.02%
RhumbLine S&P 500	3,554,179	24.66%	24.65%	0.01%	24.65%	0.00%
RhumbLine—EIA*	276,089	0.51%	0.47%	0.04%	7.60%	-7.13%
Summit Creek	406,190	5.21%	4.38%	0.83%	9.13%	-4.75%
Frontier	617,830	21.78%	21.27%	0.51%	10.93%	10.34%
Riverbridge	297,852	-0.47%	-1.13%	0.66%	9.02%	-10.15%
SSGA R2500	1,174,075	10.51%	10.5%	0.01%	10.48%	0.02%
Acadian US Microcap	252,005	4.97%	4.71%	0.26%	1.72%	2.99%
Brandywine US Microcap Value	140,854	-5.77%	-6.48%	0.71%	7.96%	-14.44%
Lord Abbett US Microcap Growth	238,403	6.12%	5.36%	0.76%	2.4%	2.96%
Driehaus Capital Management	295,775	15.93%	15.06%	0.87%	2.4%	12.66%
SSGA World Ex-US Standard	2,110,617	11.04%	11.03%	0.01%	11.12%	-0.09%
Marathon—London	2,640,410	12.8%	12.44%	0.36%	11.12%	1.32%
Baillie Gifford	1,592,452	1.26%	0.99%	0.27%	11.12%	-10.13%
Mondrian Investment	581,788	11.97%	11.59%	0.38%	11.12%	0.47%
ARGA	730,598	11.36%	10.92%	0.44%	11.12%	-0.20%
Columbia Threadneedle	621,381	12.18%	11.88%	0.30%	11.12%	0.76%
Causeway Capital Management	548,633	12.36%	11.95%	0.41%	11.12%	0.83%
Pzena Investment Management	450,982	10.48%	10.11%	0.37%	11.12%	-1.01%

12. We used the Gross and Net of Fees reports for fiscal year 2024 to create this table. All cash accounts were excluded from this table because there is no ROI for cash balances.

Fund Name	NAV \$	Gross ROI	Net ROI	Difference (Percentage ROI Spent on Fees)	Benchmark	Net ROI Compared to Benchmark
Xponance	370,905	6.9%	6.36%	0.54%	11.12%	-4.76%
SSGA World Ex-US Small	555,789	7.88%	7.86%	0.02%	7.79%	0.07%
Acadian Intl Small Cap	368,748	16.28%	15.74%	0.54%	7.79%	7.95%
AQR Intl Small Cap	282,618	20.34%	19.62%	0.72%	7.79%	11.83%
Driehaus Small Cap	209,860	12.9%	12.23%	0.67%	7.79%	4.44%
Artisan Small Cap	195,533	3.07%	2.17%	0.90%	7.79%	-5.62%
AQR Emerging	806,131	21.83%	20.12%	1.71%	12.46%	7.66%
T Rowe Price EM Equity Strat	221,099	0.15%	-0.48%	0.63%	12.46%	-12.94%
Baillie Gifford EMM	842,650	15.66%	15.04%	0.62%	12.46%	2.58%
Driehaus Capital	946,079	18.49%	17.97%	0.52%	12.46%	5.51%
Pzena Inv	1,021,655	15.55%	14.85%	0.70%	12.46%	2.39%
Acadian	553,953	28.42%	27.3%	1.12%	19.97%	7.33%
Wasatch	199,731	19.44%	18.29%	1.15%	19.97%	-1.68%
Xponance	207,230	13.43%	12.68%	0.75%	12.31%	0.37%
Blackrock Passive	1,334,455	2.66%	2.65%	0.01%	2.63%	0.02%
Pimco Core	1,646,862	3.72%	3.55%	0.17%	2.63%	0.92%
Loomis Sayles Core	2,032,781	4%	3.88%	0.12%	2.63%	1.25%
AFL—CIO Housing Investment—ETI	136,421	3.6%	3.48%	0.12%	2.63%	0.85%
Pugh	588,986	3.56%	3.39%	0.17%	2.63%	0.76%
New Century	487,230	2.88%	2.71%	0.17%	2.63%	0.08%
Longfellow	602,220	4.35%	4.19%	0.16%	2.63%	1.56%
Blackrock—Strips	2,811,363	-13.12%	-13.13%	0.01%	-13.1%	-0.03%
Blackrock—Short Term	1,001,422	4.51%	4.5%	0.01%	4.51%	-0.01%
Blackrock—Tips	2,921,676	2.71%	2.7%	0.01%	2.71%	-0.01%

Fund Name	NAV \$	Gross ROI	Net ROI	Difference (Percentage ROI Spent on Fees)	Benchmark	Net ROI Compared to Benchmark
Blackrock ILBs	951,295	1.84%	1.71%	0.13%	1.99%	-0.28%
Bivium	73,319	3.53%	3.06%	0.47%	2.63%	0.43%
Fidelity High Yield	633,621	10.94%	10.61%	0.33%	10.53%	0.08%
Loomis High Yield	489,075	9.84%	9.4%	0.44%	10.53%	-1.13%
Shenkman High Yield	464,995	10.1%	9.7%	0.40%	10.53%	-0.83%
Eaton Vance	1,165,704	10.08%	9.66%	0.42%	11.11%	-1.45%
Voya	1,146,083	10.67%	10.32%	0.35%	11.11%	-0.79%
Ashmore	442,322	11.73%	11%	0.73%	8.35%	2.65%
Pimco EMD	437,462	10.97%	10.6%	0.37%	8.35%	2.25%
Bivium	88,977	10%	9.3%	0.70%	9.89%	-0.59%
Other Credit Opportunities	1,896,877	14.41%	14.25%	0.16%	11.89%	2.36%
Private Debt	868,115	8.94%	7.78%	1.16%	8.95%	-1.17%
Private Equity	17,885,820	8.97%	7.69%	1.28%	5.94%	1.75%
Invesco Core	2,467,380	-7.45%	-7.79%	0.34%	-6.4%	-1.39%
LaSalle	2,368,676	-6.8%	-7.15%	0.35%	-6.4%	-0.75%
AEW	2,431,080	-4.37%	-4.64%	0.27%	-6.4%	1.76%
CBRE	829,712	1.72%	0.83%	0.89%	-6.4%	7.23%
Stockbridge	795,746	5.87%	4.7%	1.17%	-6.4%	11.10%
DivcoWest*	122,589	-0.31%	-0.31%	0.00%	-0.98%	0.67%
PRIM—Core Real Estate	565,425	-23.8%	-24.03%	0.23%	-6.4%	-17.63%
Invesco Trans	884	-4.53%	-4.87%	0.34%	-6.4%	1.53%
Non-Core	581,178	-11.8%	-12.71%	0.91%	-12%	-0.71%
CenterSquare Global REIT	724,106	7.35%	7%	0.35%	5.48%	1.52%
Cambridge Associates	68,480	4.31%	-0.86%	5.17%	-3.11%	2.25%
Forest Investments	1,464,342	14.14%	13.9%	0.24%	9.85%	4.05%
The Campbell Group	1,727,940	7.47%	7.36%	0.11%	9.85%	-2.49%

Fund Name	NAV \$	Gross ROI	Net ROI	Difference (Percentage ROI Spent on Fees)	Benchmark	Net ROI Compared to Benchmark
Directional Hedge Funds**	2,555,987	16.35%	16.35%	0.00%	12.5%	3.85%
Stable Value Hedge Funds**	4,714,294	11.52%	11.52%	0.00%	7.5%	4.02%
Pacific Alternative Asset Management Company**	771,944	8.35%	8.35%	0.00%	7.5%	0.85%
Real Assets	692,521	-8.66%	-9.2%	0.54%	5.79%	-14.99%
Parametric	177,317	23.5%	23.18%	0.32%	14.15%	9.03%
Total Liquidating Portfolios	25,465	-6.68%	-7.38%	0.70%	-6.68%	-0.70%
Total Assets Under Management	\$ 105,870,134					

* These investments were not part of the portfolio long enough to determine a one-year performance. As a result, we used the inception-to-date benchmark and ROI in our calculations.

** For this hedge fund, management fees are taken out before Gross of Fees reports.